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CHINA'S CHOICE: CAPTURING THE $5 TRILLION PRODUCTIVITY OPPORTUNITY

JUNE 2016

EXECUTIVE SUMMARY

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JUNE 2016

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IN BRIEF

CHINA'S CHOICE

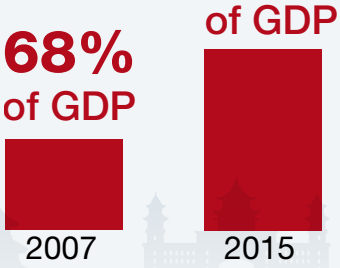
China has made substantial progress in its journey toward being a full-fledged advanced economy, but has recently experienced growing pains. The rate of GDP growth has slowed, debt has risen, and corporate performance has deteriorated. By shifting from the current investment-led growth model toward a growth model centered on productivity, China can weather current stresses and achieve sustained growth and rising incomes.

- China's investment-led model has served it well in the past. Reflecting its record-breaking urbanization and industrialization, China's GDP has expanded 25-fold, and more than 600 million people have left poverty since 1980. China is well into its transition to advanced-economy status. Its consumers have driven one-quarter of global consumption growth since 2010. The private sector is vibrant, earning three times the returns on assets of state-owned enterprises. State-owned enterprises employed 60 percent of urban Chinese workers in the 1990s, but that has dropped to 15 percent in 2015.
- But the events of recent years show that the investment-led growth model is running out of steam. Capital productivity and corporate returns are falling. If China persists with this approach, this could increase the risk of a hard landing. Our stress-test analysis found that the ratio of non-performing loans could reach 15 percent in 2019 from today's official figure of 1.7 percent. Every year that China continues on the current path could increase the cost of dealing with bad debts by 2 trillion renminbi to 3 trillion renminbi ($310 billion to $460 billion). Even then, we would not anticipate a systemic banking crisis, but a substantial (and unnecessary) slowdown in growth would be likely.
- China can face such challenges, but has a choice. By shifting decisively to a productivity-led growth model, it would ensure that capital flows to businesses that can invest in productivity, growth, and the creation of sustainable jobs. This shift could generate $5.6 trillion (36 trillion renminbi) of additional GDP by 2030, and household income could gain $5.1 trillion (33 trillion renminbi) compared with an investment-led path.
- China is ripe for a productivity revolution. Labor productivity is 15 to 30 percent of the average in OECD countries. A long tail of poorly performing companies pulls down the average although top-performing Chinese companies often have returns comparable with those of top US companies in their industries. More than 80 percent of economic profit comes from financial services—a distorted economy.
- We identify five major opportunities to raise productivity in the period to 2030: (1) unleashing more than $6 trillion (39 trillion renminbi) in consumption by serving middle-class consumers better; (2) enabling new business processes through digitization; (3) moving up the value chain through innovation, especially in R&D-intensive sectors, where profits are only about one-third those of global leaders; (4) improving business operations through lean techniques and higher energy efficiency, for instance, which could deliver a 15 to 30 percent productivity boost; and (5) strengthening competitiveness by deepening global connections, potentially raising productivity by 10 to 15 percent.
- Capturing these opportunities requires sweeping change to institutions. China needs to open up more sectors to competition, enable restructuring, and further develop its capital markets. It needs to raise the skills of the labor force to fill its talent gap and sustain labor mobility. The government will need to manage conflicts among many stakeholders and shift governance and incentives that rewarded a single-minded focus on rising GDP, even as it modernizes its own processes.

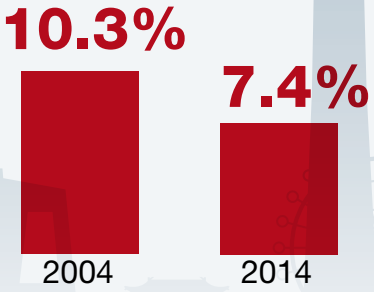
China's $5 trillion opportunity

The current investment-led model is not sustainable

Debt of non-financial corporations has doubled



Corporate returns[1] have dropped



Cost of delay

2–3 trillion RMB

additional cost to repair bad debt for every year investment-led model continues

By 2030 a new productivity-driven model can create more...

...growth

$5.6T

more GDP vs. investment-led model

...income

$5.1T

more household income vs. investment-led model

...wealth

$11,200

per capita income (from 25% of South Korea's level in 2015 to 55% in 2030)

Five opportunities can generate productivity and GDP growth

Better **serve** the middle class as it triples

Digitize to enable new business processes

Move up the value chain and raise returns 2–3 times

Improve operating efficiency to raise productivity 15–30%

Go global and potentially raise productivity 10–15%

Transforming institutions would enable the transition

- Open up to more competition
- Develop capital markets
- Enable corporate restructuring
- Invest in talent
- Boost aggregate demand
- Improve public-sector effectiveness

1 Returns on invested capital for a sample of publicly traded companies based on three-year trailing averages ending in 2004 and 2014.

SOURCE: McKinsey Global Institute analysis

© Blue Jean Images/Getty Images

EXECUTIVE SUMMARY

After three decades of sizzling growth, China is now in the ranks of upper-middle-income nations, as defined by the World Bank, and on its way toward being one of the world's advanced economies. The investment-led growth model that underpinned this extraordinary progress has served China well. But the strains associated with that approach are now evident. In 2015, GDP growth dipped to 25-year lows, corporate debt continued soaring, China's foreign reserves fell by $500 billion, and the stock market dropped by nearly 50 percent. There has been speculation that China could be on track for a financial crisis.

China faces an important choice: continue with the old model and raise the risk of a hard landing for the economy, or shift gears. Our analysis finds that a new approach centered on productivity could generate $5.6 trillion (36 trillion renminbi) of additional GDP by 2030 compared with the investment-led path. Household income could rise by $5.1 trillion (33 trillion renminbi).[1]

A new productivity-led model would enable China to create more sustainable jobs, reinforcing the rise of the consuming middle class, and accelerating progress toward being a full-fledged advanced economy. Such a shift will require China to steer investment away from overbuilt industries to businesses that have the potential to raise productivity and create new jobs. Weak competitors would need to be allowed to fail rather than dragging down profitability in major sectors. Consumers would have more access to services and opportunities to participate in the economy.

There are obstacles to be surmounted if China chooses to transition to this new approach, including a potential shortage of skills, an aging population, slowing urbanization, and growing income inequality. But the nation is in a strong position to overcome them. Over the past 30 years, it has advanced at extraordinary speed through unprecedented industrialization and urbanization. It has a thriving middle class, vibrant private enterprises, and an expanding services sector. China's leadership has already demonstrated its ability to make radical changes when necessary. Its reform of poorly performing state enterprises in the 1990s—an effort that led to a decade of 10 percent annual growth—is just one example.

Making this transition is an urgent imperative. The longer China continues to accumulate debt to support near-term GDP growth goals, the greater the risks of a hard landing. We estimate that the non-performing loan ratio in 2015 was already about 7 percent, well above the reported 1.7 percent. While most banks today have sufficient buffers to absorb losses, this ratio could rapidly increase if no visible progress is made to curb lending to poorly performing companies, and if the performance of Chinese companies overall continues to deteriorate. In such a case, we estimate that the non-performing loan ratio could rise to 15 percent, which would trigger a substantial impairment of banks' capital and require replenishing equity by as much as 8.2 trillion renminbi ($1.3 trillion) in 2019. In other words, every year of delay could raise the potential cost by more than 2 trillion renminbi ($310 billion). Our analysis suggests that such an escalation would not lead to a systemic banking crisis, but a liquidity crunch among corporate borrowers and waning confidence of investors and consumers during the recovery phase would still have a significant negative impact on growth.

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[1] Currency conversions are for reference only. We used the average exchange rate in the first half of 2016 ($1 = 6.5 renminbi).

THE INVESTMENT-LED MODEL HAS POWERED CHINA'S ECONOMY BUT IS NOW RUNNING OUT OF STEAM

Over the past three decades, investment has powered the Chinese economy. It created infrastructure to meet the demand from rapid urbanization, and it helped companies build a manufacturing sector that produces goods for customers in China and the world while creating jobs. China has been industrializing and urbanizing on an unprecedented scale. Since 1980, GDP has risen 25-fold and more than 600 million people have moved out of poverty. The World Bank already classes China as an upper-middle-income country, alongside nations such as Brazil, Mexico, and South Africa.[2] There are now 116 million middle-class and affluent households (with annual disposable income of at least $21,000 per year) compared with just two million such households in 2000.

China has moved beyond being the world's greatest source of low-cost manufacturing capacity. In 2015, the services sector grew by 8.3 percent, 2.3 percentage points faster than manufacturing, and services now account for 50 percent of GDP, compared with 41 percent for secondary industry including manufacturing sectors. Retail sales are growing by about 10 percent per year, and online sales are growing by 30 to 40 percent. Private consumption grew by more than $1 trillion from 2010 to 2015, accounting for one-quarter of global consumption growth. The private sector is playing an increasingly important role in China's economy. State-owned enterprises (SOEs) employed 60 percent of urban Chinese workers in the 1990s, but that has dropped to 15 percent in 2015. The performance of private-sector firms is far superior to that of SOEs, with a 12 percent return on assets vs. 4 percent in 2015.

Top **20%** households account for more than 50% of total household income vs. 33% in 1995

Whatever challenges it faces, China does so from a position of strength. But the evidence suggests that it now needs to move decisively beyond the investment-led model. Urbanization led to growth in the number of Chinese living in cities of 2 to 3 percent a year; now that rate is expected to slow to 1 percent, gradually removing one of the major drivers of economic growth. Labor costs are rising, compromising China's competitiveness in low-wage, labor-intensive industries such as footwear. As an illustration, China's share of global exports of footwear has fallen from 52 percent to 46 percent since 2010, with Cambodia, Indonesia, and Vietnam gaining share. Income inequality is rising. The share of income going to the top fifth of the population rose from 33 percent in 1995 to 43 percent in 2012, according to the government; other sources say it might be more than 50 percent in recent years. The years of heavy investment to build up the economy's manufacturing capacity have left some sectors with overcapacity, and China faces a skills shortage.

Risks are rising. In the near term, there is a risk that the economy could experience a hard landing that would impose significant stress on the banking sector. In the longer term, the investment-led approach is likely to lead to slower GDP growth than a productivity-led model would deliver, hindering China's progress toward being a fully advanced economy and compromising the ability of citizens to raise their incomes and standards of living. The longer China continues to rely on investment-led growth, and the more time that passes before it addresses the problems associated with the current model, the greater the risks to China's future.

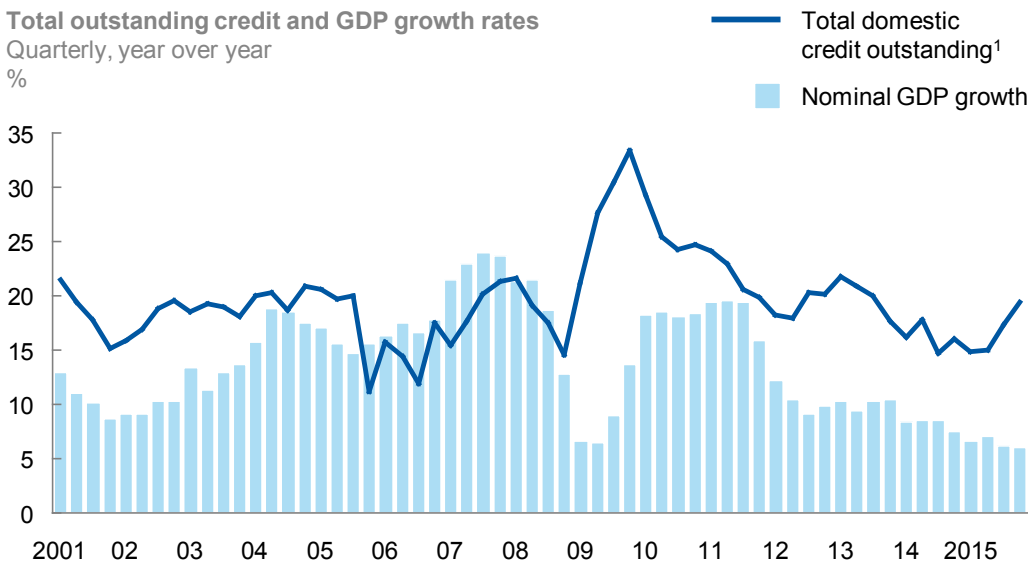
[2] China's gross national income per capita is $7,400 (Atlas method) according to the *World Bank Atlas* method, which is used to compare economic data across different countries. This is 80 percent above the World Bank's threshold for upper-middle income.

Over the past year, growth has declined, debt has risen, capital productivity has waned, and profits have weakened

A number of indicators covering the past year strongly suggest that the investment-led model is becoming unsustainable. The rate of annual nominal GDP growth fell to just under 7 percent in 2015 from 19 percent in 2011. Total debt held by non-financial corporations doubled from 68 percent of GDP in 2007 to 136 percent in 2015. Total credit outstanding has been growing at 15 to 20 percent per year (Exhibit E1). The debt of local government financing vehicles—the quasi-public entities that governments use to finance infrastructure and other projects—is also rising.

Exhibit E1

Under the investment-led model, China's credit growth far exceeds GDP



1 Includes total social financing, non-loan bank claims on non-banking financial institutions and on corporations and households, and banks' net claims on government (a portion of the claims data is available only starting in 2005). This measurement includes all outstanding credit in the real economy but excludes interbank credit.

SOURCE: McKinsey Global Institute Debt & Deleveraging database; CEIC; Emerging Advisors Group; McKinsey Global Institute analysis

60%
more capital needed to produce one unit of GDP compared with 1990-2010

As credit growth has expanded, fixed capital productivity has declined. It now takes 60 percent more fixed capital investment to produce one unit of GDP than was needed between 1990 and 2010. Weak global demand, overcapacity, and the continuing presence of unproductive companies are also dragging down returns across the Chinese economy. Average returns on invested capital for a sample of more than 3,000 Chinese companies fell from 10.3 percent to 2004 to 7.4 percent in 2014 (based on three-year trailing averages). In the steel and cement sectors, more than half of publicly listed companies are estimated to generate returns below their cost of capital. Across sectors, a long tail of poorly performing companies is dragging down average returns. Returns on invested capital in R&D-intensive manufacturing such as autos, semiconductors, and pharmaceuticals are 8.5 percent in China compared with 16.5 percent in the United States. Chinese service companies have average returns of 8.9 percent, compared with 12.0 percent for US service companies.

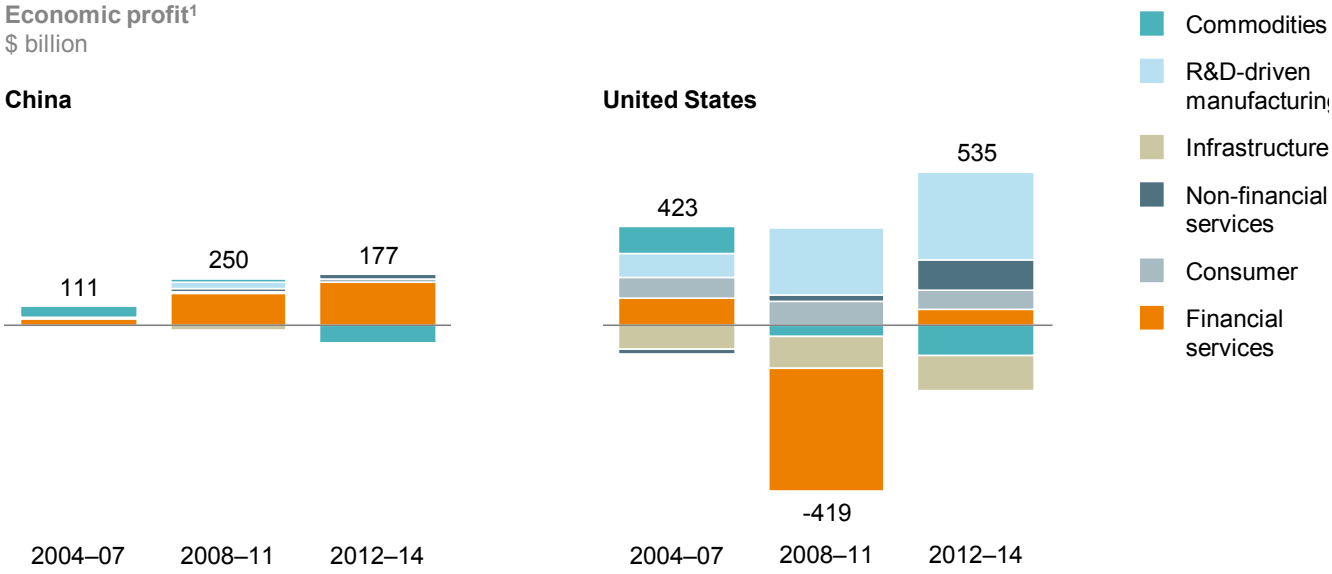
Unproductive firms remain in business because they can continue to borrow both from the formal banking system and from shadow-banking institutions, and because local authorities are reluctant to let companies fail due to job losses and the impact on local GDP. Not only does the continuing presence of poor performers drag down the averages, but their behavior in the market also can undercut profits of healthy firms.

Investment-led growth has produced a highly distorted economy

The current economic model has distorted the structure of the economy. Banks have been playing a dominant role in funding investment and supplying capital to companies, and they account for more than 80 percent of total financial assets in China. Aided by past interest-rate regulation, banks have enjoyed a comfortable net interest margin of around 3 percent (profit earned through the difference between deposit and lending rate) over the past decade; those margins have been squeezed as China has moved toward interest-rate liberalization over the past few years. Still, more than 80 percent of the economic profit generated in China—a measure that takes into account the cost of capital—comes from the financial sector.[3] SOEs get more than 50 percent of total bank lending, which has been a lifeline for the long tail of unproductive and poorly performing companies. Such companies are particularly prevalent in traditional manufacturing sectors such as metals, mining, and chemicals where economic profit is negative across industry. In the United States, the distribution of economic profit is more diversified across different industries, and changes along with the economic cycle (Exhibit E2).

Exhibit E2

In China, economic profit has been highly concentrated in the financial sector



1 We define economic profit as NOPLAT (net operating profit less adjusted taxes) minus the capital charge.

SOURCE: McKinsey Corporate Performance Analytics; McKinsey Global Institute analysis

Is there sufficient evidence to suggest that China faces a hard landing?

To understand the potential for problems in China's banking sector and the economy at large, we conducted a series of stress tests using different hypothetical scenarios. We analyzed the risks to bank assets by assessing the quality of bank lending portfolios and banks' exposure to the shadow-banking sector. We also looked at risks on the liabilities and equities side: the loss of deposits and the inability to meet capital requirements because of the effect of falling profits.

[3] We define economic profit as net operating profit less adjusted taxes (NOPLAT) minus the capital charge. The capital charge is defined as invested capital multiplied by the weighted average cost of capital. For financial companies, the economic profit is defined as net income minus the capital charge (equity multiplied by the cost of equity). We note that companies in negative-profit sectors still have positive operating margins, but once the cost of capital is fully taken into account, economic profits are negative, destroying value. Our economic profit analyses include more than 3,500 China-based (revenue equivalent to 55 percent of China's 2015 GDP) and 7,000 United States-based (revenue equivalent to 86 percent of US 2015 GDP) publicly listed companies.

On the asset side, the largest risk to banks would be widespread default by corporate borrowers in formal and shadow banking. Using the McKinsey Corporate Performance Analytics Tool, we analyzed 2,300 public companies and found that overall total debt loads have more than doubled since 2010, even as revenue and margins have contracted for many companies. As a result, debt-to-EBITDA (earnings before interest, taxes, depreciation, and amortization) multiples—a metric of solvency risk—have risen. About 30 percent of companies in our sample had EBITDA multiples of seven or higher in 2015, up from 20 percent of companies in 2010. A multiple of seven is generally regarded as a sign of heightened risk. Based on a bottom-up assessment of companies on their solvency measures, we estimate that about 7 percent of bank loans could be classified as non-performing in 2015, compared with the official estimate of 1.7 percent, and this could lead to loan losses of 2.3 trillion renminbi ($350 billion) on banks' current loan portfolios. Quantifying the risk to the banking system from shadow banking—lending that takes place outside the formal banking system—is more difficult.[4] Shadow-banking assets have grown to about 45 trillion renminbi ($6.6 trillion) and now represent about 20 percent of total lending. We estimate that, through intermediation and other links, banks are connected to about 60 percent of shadow-banking assets, which could lead to additional losses of 1.6 trillion renminbi ($250 billion). This would bring the total exposure to bad debt of the Chinese banking system to 3.9 trillion renminbi ($600 billion). This level of loss would wipe out current loan loss reserves of 2.3 trillion renminbi ($350 billion) and erode 1.6 trillion renminbi ($250 billion) of commercial bank equity, about 14 percent of the total. Large Chinese banks could absorb such losses today, but smaller banks might face capital losses.

Banks could also face challenges related to liabilities and capital. Today, Chinese banks have access to low-cost capital in the form of deposits on which they pay low interest. However, the deposit base could erode as wealthy Chinese move money abroad in search of higher returns, and less wealthy households potentially tap into their savings to see them through more challenging economic times. In addition, there are links between banks and shadow banks on both deposits and liabilities that could prove to be another trigger of funding stresses. Although these links are not substantial enough to be a threat to the banking system today, if the trend continues banks could be further exposed to low-quality sources of funding. When shadow banking products default at scale, this could lead to the sudden withdrawal of deposits or the redemption of claims by non-banking institutions that could pose a liquidity challenge to the banking system. Bank equity could also decline, potentially leaving banks without sufficient capital to meet safety requirements under Basel III accords.

China has the capacity to fund a bank rescue, but the cost of delay will be high

To quantify the potential cost to the banking sector, we estimated recapitalization requirements in three years' time in a hypothetical case in which banks continue to lend to risky borrowers and corporate performance keeps deteriorating. In this scenario, the ratio of Chinese banks' non-performing loans doubles to 15 percent, and total potential loan losses (including exposure to shadow banking) rises from 3.9 trillion renminbi ($600 billion) in 2015 to 11.5 trillion renminbi ($1.8 trillion) in 2019. This implies that the cost of recapitalizing banks would be 8.2 trillion renminbi ($1.3 trillion) in 2019, equivalent to 12 percent of current GDP. In other words, every year that China continues on the investment-led path could increase the cost of dealing with bad debts by 2 trillion renminbi to 3 trillion renminbi ($310 billion to $460 billion).

[4] Shadow banking is loosely regulated, and the connection to banks is indirect. Banks do not fund shadow-bank loans but act as intermediaries, tapping their client networks (including corporate customers) to fund shadow-banking investment vehicles known as wealth-management products or trust accounts. Customers put their money into these products on the promise of high returns (5 to 10 percent compared with 2 to 3 percent on bank deposits), but those returns are possible only because borrowers are high-risk—companies that do not qualify for bank lending or have reached their limits for bank credit. Borrowers are also concentrated in high-risk sectors, such as steel, mining, textiles, and energy.

We believe that China has enough capacity to facilitate and support such a rescue. Government debt is about 50 percent of GDP, compared with 80 to 90 percent in Germany and the United States, and 240 percent in Japan. Raising this figure to 65 percent would generate more than 10 trillion renminbi ($1.5 trillion), enough to cover the 8.2 trillion renminbi ($1.3 trillion) recapitalization in our extreme scenario. The government also manages 123 trillion renminbi ($19 trillion) of assets as of April 2016, according to China's Ministry of Finance. Securing additional financing on the basis of these assets could help generate additional funds. The government also controls land resources that have generated about 3.5 trillion renminbi ($540 billion) in revenue every year since 2010. China also has accumulated $3.2 trillion (21 trillion renminbi) of foreign reserves that could be used selectively if necessary.

However, the longer banks and shadow banks continue lending to underperforming companies, the higher the potential cost of defaults. The damage to the economy would be significant. It generally takes three to seven years for countries to recover from financial crises. During the recovery period, investor and consumer confidence will wane and will certainly impact the growth trajectory. It is important for China to take action to head off such a crisis.

A PRODUCTIVITY-LED MODEL CAN ADD MORE THAN $5 TRILLION TO GDP AND HOUSEHOLD INCOME IN 2030

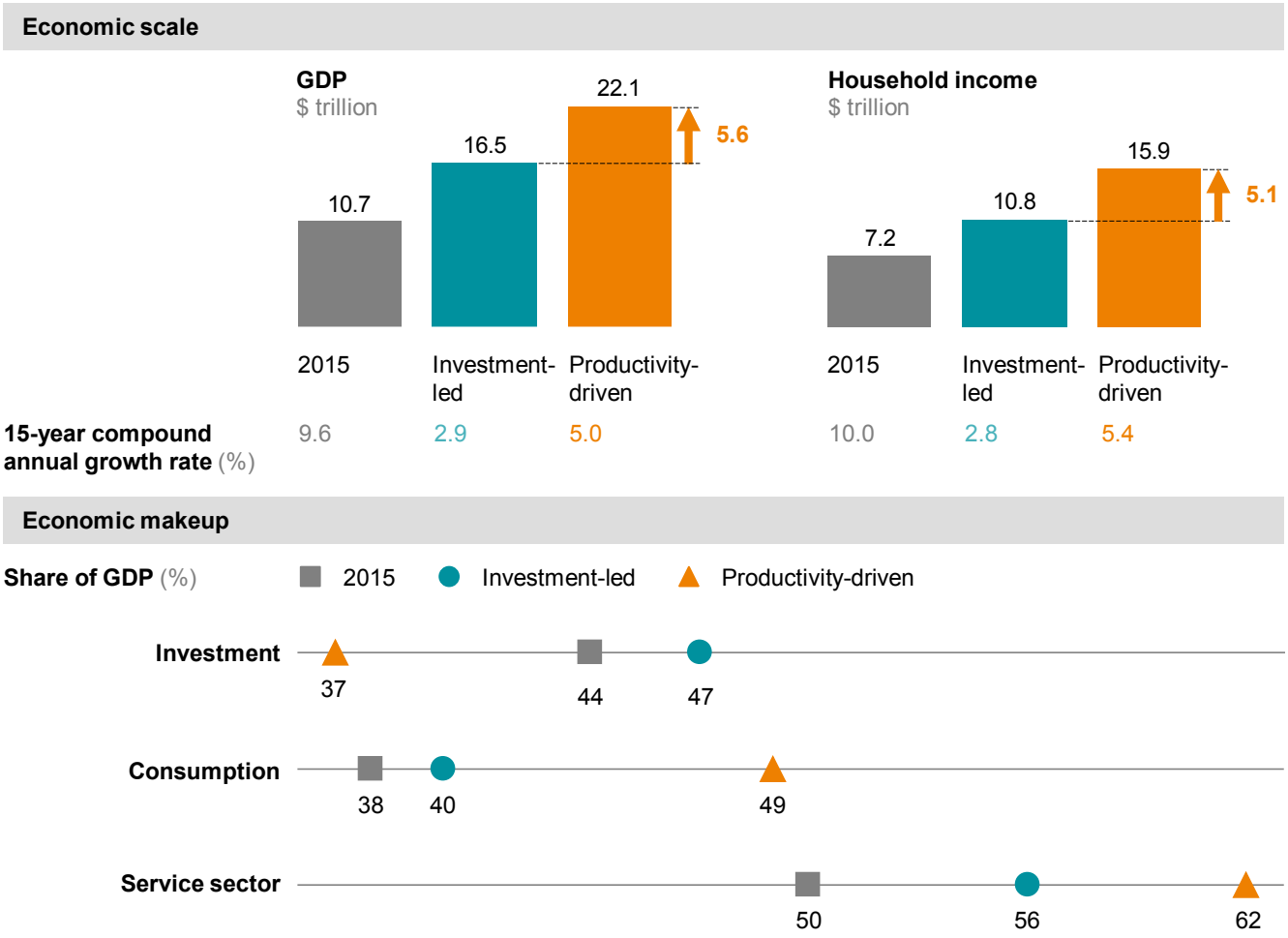
China has a choice. If it shifts decisively toward a new economic growth strategy centered on productivity, it does not need to risk a hard landing and can sustain growth as it continues to transition toward being an advanced economy. Today, productivity across Chinese industries is just 15 to 30 percent of the average for industries in OECD countries. Industries suffering from overcapacity need to be restructured, and investment must be shifted to more productive uses. The new model needs to emphasize investment in innovation and skills, and it must include a concerted effort by corporations to move up the value chain and bring productivity closer to advanced-economy standards.

We find that a successful transition to a productivity-driven growth model could raise GDP by $5.6 trillion above where it would likely be in 2030 with the current investment-led approach. Productive enterprises would create new, sustainable jobs. We estimate that aggregate household income could increase by $5.1 trillion by 2030 compared with the current approach. Rising incomes are critical if China is to continue to shift toward full advanced-economy status where consumption plays a larger role and new forms of employment are created. We estimate that rising wages can help expand China's middle-class and affluent households (with annual disposable income of at least $21,000) from about 116 million people today to an estimated 315 million in 2030.

In addition to generating higher long-term growth, the productivity-led model can substantially reduce the risk of a hard landing for the Chinese economy. It would change the economic mix. The share of consumption would be 49 percent in 2030 compared with 38 percent today and with the 40 percent that might be expected if the current investment-led model were to remain in place. The service sector would continue to expand its GDP share as the economy modernizes (Exhibit E3).

Exhibit E3

A productivity-driven approach can add $5 trillion each to GDP and household income by 2030 compared with the investment-led growth model



SOURCE: McKinsey Global Institute analysis

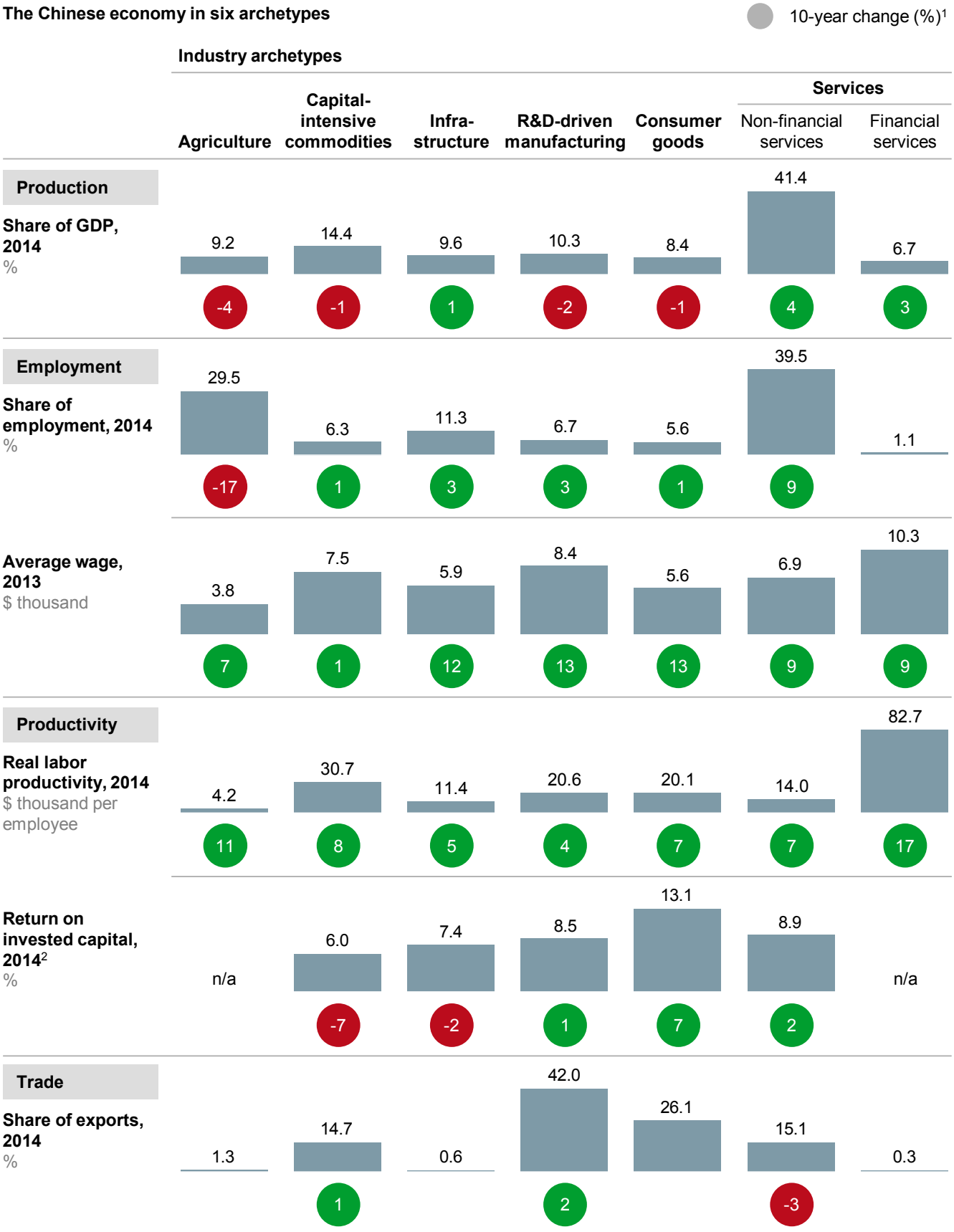
A PRODUCTIVITY-LED APPROACH WOULD CHANGE THE SECTOR AND EMPLOYMENT MIX

Adopting a productivity-led model would also hasten restructuring of China's economy. In order to better understand what can make different types of industries thrive and become more productive, we have grouped major Chinese industries into six archetypes based on common characteristics such as labor- or capital-intensity (Exhibit E4). Using this approach, policy makers, business leaders, and investors can determine where best to focus their energy and resources as China moves toward productivity-based growth.

Our analysis finds that the share of GDP and employment of the six industry archetypes will shift. Agriculture, whose share of GDP has fallen by 50 percent since 2000, could decline to 4 percent by 2030, closer to the 1 to 2 percent of GDP typical in advanced economies. Capital-intensive commodities and infrastructure, long the growth drivers of the Chinese economy, could shrink from 14 percent and 9 percent of GDP in 2015, respectively, to 8 percent and 5 percent in 2030. Meanwhile, service sectors could increase their share of GDP from 50 percent in 2015 to 62 percent in 2030, and R&D-driven manufacturing from 11 percent to 12 percent over the same period.

Exhibit E4

The Chinese economy in six archetypes



1 Changes are shown as change of share for all share or percent measurements and as compound annual growth rate for absolute measures (e.g., wages and productivity).
2 Aggregated return on invested capital of representative sectors; based on three-year trailing average.
NOTE: Numbers may not sum due to rounding.

SOURCE: IHS; National Bureau of Statistics of China; McKinsey Corporate Performance Analysis Tool; McKinsey Global Institute analysis

As the sector mix in GDP shifts, so, too, will the structure of employment. Agriculture, commodities, and infrastructure are likely to shed jobs, while employment is expected to grow in services, and consumer manufactured goods. We estimate that more than 200 million workers might need to be shifted into other sectors over 15 years as the economy undergoes its transition even while urbanization continues. Services sectors are likely to provide the most opportunities for displaced workers from traditional manufacturing sectors and the newly urbanized, potentially employing around 500 million by 2030, up from 320 million today.

FIVE MAJOR OPPORTUNITIES SHOULD BE THE CENTERPIECE OF A PRODUCTIVITY-LED APPROACH

We identify five major opportunities that would help China to execute a swift and—to the extent possible—smooth transition to a productivity-led model and to full advanced-economy status. Opportunities vary by archetype. For example, opportunities to raise productivity in capital-intensive commodity businesses such as coal and steel lie in improved capacity utilization and operations. Autos, semiconductors, and pharmaceuticals, which fall in the category of R&D-driven manufacturing, afford excellent opportunities to move up the value chain. Overall, these opportunities can help raise productivity across the six archetypes by 1 to 8 percent per year through 2030 (Exhibit E5).

Exhibit E5

We identify five major opportunities to raise productivity across industry archetypes

● Primary
○ Secondary

Industry archetypes	Labor productivity compound annual growth rate, 2015–30 %	Additional GDP[1] $ trillion	Opportunities: Better serve middle-class consumers	Digitize to enable new business processes	Innovate and move up the value chain	Drive operational transformation	Go global
Agriculture	7	+0.1	○	○	○	●	○
Capital-intensive commodities	6	-0.4		○	○	●	○
Infrastructure	4	-0.3		○	○	●	●
R&D-driven manufactured goods	8	+1.1	○	●	●	●	●
Consumer goods	5	+0.7	●	●	●	●	●
Non-financial services	4	+4.1	●	●	○	○	○
Financial services	1	+0.3	●	●	○	○	○
Total	**5.2**	**+5.6**					

1 Compared with investment-led growth path by 2030.

SOURCE: McKinsey Global Institute analysis

Opportunity 1: Better serve middle-class consumers

Consumption has grown rapidly along with GDP, rising by $1.1 trillion (7.2 trillion renminbi) from 2010 to 2015. However, its share has remained at around 36 percent of GDP since 2008 (in real terms). We believe that this share can grow to 49 percent by 2030, rising from $4.1 trillion (27 trillion renminbi) per year to $10.8 trillion (70 trillion renminbi). More Chinese consumers would have higher levels of disposable income, and consumer-facing companies would need to address rising demand for higher-quality goods and services. Achieving this growth is an enormous productivity-boosting opportunity. [5]

Consumption growth will be strongest in the largest urban clusters. We have identified 22 such clusters in China. Of these, the top three of Beijing, Shandong, and Shanghai, could generate about one-third of consumption growth, and the next seven could account for 40 percent of consumption growth. Working-age urban consumers in China will be the most important demographic, contributing 18 percent of global consumption growth by 2030.[6] In a McKinsey survey, more than half of Chinese consumers say they want to trade up.[7] Chinese travelers spent $102 billion (660 billion renminbi) in 2015 on the purchase of goods including luxury products and premium brands overseas, evidence of consumers' willingness to trade up when they do not find the products and services they want to buy in China.

50%
of Chinese consumers willing to trade up

This creates an enormous opportunity for companies that can meet the increasingly high aspirations of Chinese consumers. Companies can, for instance, achieve higher sale through "premiumization." Between 2008 and 2014, sales of premium goods grew faster than sales of goods overall—at 26 percent per year compared with 12 percent in the case of chocolate, 13 percent vs. 10 percent for personal-care products, and 12 percent compared with 5 percent for sportswear. Companies can develop upgraded product lines with improved design, more premium branding, and higher quality that appeal to China's new generation of consumers. Consumer-facing companies can also invest in microsegmentation to track down the most likely shoppers even at the level of individual neighborhoods and can invest in online advertising, social media, and advanced customer relationship management systems to help them connect with consumers.

Opportunity 2: Digitize to enable new business processes

We see significant opportunities to use digital technologies to improve the performance of manufacturing industries, expand and modernize service sectors, and improve talent management.

China has an opportunity to leapfrog into a new digital era and create significant economic value as a result.[8] Digitization is creating opportunities for enhancing revenues through the creation of new markets that can help to overcome pressure on margins. In consumer electronics, for example, sales of new categories such as smartphones and wearable devices have grown at annual rates of more than 50 percent over the past five years compared with growth in the sector overall of a more modest 14 percent. In the automotive industry, Chinese consumers are excited about connected car opportunities. Sixty percent of Chinese car consumers said that they would switch to another brand if it was

5 *Urban world: The global consumers to watch*, McKinsey Global Institute, April 2016.

6 Ibid.

7 *2016 China consumer report: The modernization of the Chinese consumer*, McKinsey & Company. Based on 10,000 in-person interviews with people aged 18 to 65 in 44 cities representing China's major regions and tiers.

8 MGI has published extensively on digitization and its impact. See, for instance, Jacques Bughin and James Manyika, "Measuring the full impact of digital capital," *McKinsey Quarterly*, July 2013; *China's digital transformation: The Internet's impact on productivity and growth*, McKinsey Global Institute, July 2014; *The Internet of Things; Mapping the value beyond the hype*, McKinsey Global Institute, June 2015; Michael Chui, James Manyika, and Mehdi Miremadi, "Four fundamentals of workplace automation," *McKinsey Quarterly*, November 2015; *Digital America: A tale of the haves and have-mores*, McKinsey Global Institute, December 2015; and *Digital globalization: The new era of global flows*, McKinsey Global Institute, March 2016.

the only brand offering a car with full access to apps, data, and media; this compares with 20 percent of Germans expressing the same view, and 33 percent of consumers surveyed in the United States.[9]

Service sectors such as retailing and logistics are highly fragmented in China today, and they need to modernize. By using digital platforms to reach new customers, retailers can leapfrog into e-commerce and reach consumers in smaller cities and rural areas without having to build physical store networks. In MGI's 2013 research on e-commerce, we estimated that as much as 40 percent of sales via e-commerce channels is new consumption.[10] In logistics, digital platforms for scheduling can help make the 700,000 companies in the sector far more efficient. China can also improve the delivery of social services—a growing need as economies become wealthier—by investing in digital technologies.[11] Investment in online learning platforms can reduce disparities in urban and rural education.[12] Telemedecine systems can enable doctors in cities to remotely treat patients in rural clinics.

Chinese companies can use digital technologies to improve their talent management. Skills shortages and high turnover of employees are major challenges for many Chinese companies. According to one survey, 28 percent of Chinese workers said that they had changed jobs in the past six months, compared with 18 percent in the United States, 11 percent in Japan, and 10 percent in Germany.[13] Digital platforms and tools can help companies match talent and available jobs faster and more cheaply. Gamification in recruiting can create a simulated working environment that helps applicants understand what is expected of them at the same time that it gives companies an opportunity to observe applicants' behavior. Optimized training approaches such as "fragmented training" (ten-minute modules delivered through digital devices) can work well, especially for young workers. Predictive human resources models can help identify high-risk individuals and groups before they are hired, improving retention rates.[14]

Opportunity 3: Innovate and move up the value chain

Companies can become more profitable and productive by raising the value added of their products and services. Chinese companies have tended to be globally competitive in sectors where they can use massive commercialization opportunities and a large manufacturing ecosystem in their domestic market; internet services and electronics manufacturing are two examples where these conditions are in place. However, Chinese business have not tended to emerge as global players in sectors where more complex innovation requiring in-depth scientific knowledge and engineering know-how is necessary in order to compete on a world stage.[15] The profitability of Chinese companies in these industries, which include autos, pharmaceuticals, and semiconductors, is only about one-third that of global leaders because Chinese companies tend to remain engaged in lower-value-added activities.

In the automotive industry, major state-owned automakers have joint ventures with major overseas car manufacturers that largely use global platforms from other markets that are then adapted for the Chinese market. This model means that Chinese firms do not have

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9 McKinsey Connectivity and Autonomous Driving Consumer Survey, 2015.

10 *China's e-tail revolution: Online shopping as a catalyst for growth*, McKinsey Global Institute, March 2013.

11 For a discussion on government productivity, see, for example, Hans Arnum at al., "Government's productivity imperative," *McKinsey on Government*, number 4, summer 2009; and *The public-sector productivity imperative*, McKinsey & Company, March 2011.

12 *A labor market that works: Connecting talent and opportunity in the digital age*, McKinsey Global Institute, June 2015.

13 Randstand Work Monitor, Randstand, December 2015.

14 *A labor market that works: Connecting talent and opportunity in the digital age*, McKinsey Global Institute, June 2015.

15 For an extensive discussion of innovation in China, see *The China effect on global innovation*, McKinsey Global Institute, October 2015.

sufficient opportunities to gain knowledge by participating in the end-to-end design of products. Moreover, Chinese auto companies invest half as much as their foreign partners on R&D as a share of sales. One opportunity that Chinese firms could seize is a global shift toward electric and part-electric vehicles. McKinsey surveys have found that Chinese consumers generally prefer foreign car brands to Chinese ones, but this preference does not extend to electric vehicles. Companies that move quickly now to upgrade value added stand a better chance of competing successfully as the market develops.[16]

China has less than **3%** share of global branded drugs market

In semiconductors, China's industry is largely focused on producing chips designed by others. The top global semiconductor players still earn the lion's share of economic profit across the value chain, and the leadership of these three companies has not changed for a long time. China could capture more value in this sector by encouraging the growth of national champions using its unique access to semiconductor customers. For their part, semiconductor companies can strengthen their in-house innovation capabilities in alignment with a long-term product-development plan and patient investment. Acquisition of know-how through mergers and acquisitions (M&A) can be a shortcut if managed well. In pharmaceuticals, Chinese companies have made a good deal of progress in boosting the number of PhDs and researchers working with them but have still not become leaders in branded pharmaceuticals, the patented medicines that command high profits. Chinese companies have less than 3 percent of the global branded drug market. Innovation in drugs—discovering a new molecule or a biologic—is a costly process that can take years of laboratory work. As regulatory authorities continue to reform the drug approval process to shorten the time to get a new drug to market, companies can move up the value chain by using China's huge research capacity to innovate.

Opportunity 4: Drive operational transformation

There is enormous scope to boost productivity within Chinese companies by overhauling the way they operate—introducing more automation, improving energy efficiency, and adopting lean processes. We estimate that a comprehensive program could improve labor productivity by 15 to 30 percent by 2030.

More automation in factories is one of the biggest opportunities. Chinese companies have pioneered a system of collaboration between people and robots that provides flexibility and reduces capital investment. Such approaches can be adopted by many other manufacturing businesses. While China is the largest purchaser of robots in the world, there are still only 36 robots per 10,000 manufacturing workers, about half the global figure, and less than one-tenth the level in South Korea, for instance. New, low-cost robots could help spread their use. On energy use, we find that well-managed energy-efficiency programs can save 10 to 30 percent of energy costs. Finally, lean processes and approaches such as Six Sigma can save costs and improve quality. These techniques are not new to China, but they have had limited success because of the ways in which they have been implemented.

Opportunity 5: Go global and strengthen competitiveness

China has participated in globalization mostly as a source of goods for the rest of the world. However, to continue China's progress toward being a full-fledged advanced economy, more of its companies will need to establish operations in foreign markets, competing with the world's leading players on their home turf. Despite the growing presence of Chinese firms in international markets, overall their global reach remains limited. The overseas revenue of the top five Chinese companies is less than 10 percent of total sales, compared with 30 to 70 percent in the case of non-Chinese multinationals. Going global can help companies grow and boost their productivity by gaining access to new markets for their products and services, tapping new sources of talent and strategic assets, and creating

[16] For further details, see *Finding the fast lane: Emerging trends in China's auto market*, McKinsey & Company, April 2016.

competitive pressure in domestic industries. We estimate that globalization could lift the labor productivity of Chinese companies by 10 to 15 percent by 2030.

M&A will be an important part of any global push by Chinese businesses, and it is already growing rapidly, spreading far beyond the resources sector. Energy and materials deals accounted for 62 percent of outbound M&A between 2006 and 2010, but this share fell to 46 percent between 2011 and 2015 as deal volumes increased in technology and in services such as real estate and entertainment. The geographic reach of outbound M&A has also broadened. North American deals accounted for 17 percent of transactions in 2006–2010 and rose to 25 percent in 2011–2015. However, the current performance of Chinese M&A is worse than that of its Europe and Western counterparts. The ratio of acquirers achieving higher total returns for shareholders compared with the benchmark of the local stock exchange is only 38 percent for deals done by Chinese acquirers, compared with 75 percent by Europe acquirers and 54 by US acquirers.[17] Chinese companies will need to build M&A management capabilities such as due diligence and post-merger integration while developing a system to manage global organization, marketing, and production.

TRANSFORMING INSTITUTIONS CAN ENABLE THE TRANSITION

Guiding an $11 trillion economy with 1.4 billion people in a new direction will be extremely challenging. Government can do a great deal to improve the odds of success by transforming institutions in six priority areas:

1. **Open more sectors up to competition.** SOEs still account for 43 percent of service-sector fixed-asset investment, compared with 8 percent in manufacturing. Encouraging more competition can create healthy pressure to drive more innovation and improve customer service. In telecommunications, for instance, an effort to introduce mobile virtual network operators to target underserved segments has not yet had a substantial impact because the big three players in the sector still have considerable clout in negotiations and strong influence on pricing. In health care, fixing the economics model to make hospitals less dependent on drug sales and encourage more qualified doctors to work at private hospitals could help improve the quality of service.

2. **Improve the breadth and quality of capital markets.** China would benefit from a financial system where market forces allocate capital efficiently; that means well-functioning bond and equity markets that attract a diverse set of investors, including institutional and overseas players. The municipal bond market could lower financing costs for local government while bringing market discipline to managing investment projects. To facilitate this shift, China needs to strengthen the foundations of an effective financial system, such as strong, independent credit-rating agencies, more transparent public data on the economy, and more effective communication about government monetary policy. Inviting new players (such as internet banks) to supply capital and helping banks build capabilities to undertake more lending for underserved segments such as small and medium-sized enterprises and rural consumers will be important.

3. **Enable corporate restructuring.** Shifting successfully to a productivity-led growth model will mean a sea change—letting inefficient companies fail rather than protecting and propping them up and rationalizing excess capacity. China needs to facilitate an orderly restructuring of overbuilt industrial sectors by enforcing bankruptcy law and improving the bankruptcy process. Strengthening capabilities of asset-management companies tasked with handling restructuring could help to turn around companies in default.[18] China will need to expand the securitization of non-performing loans to be

[17] For more information, see the forthcoming McKinsey & Company report, *Outbound M&A excellence: Building M&A capabilities for Chinese leaders*.

[18] China has already expanded the network of asset management companies, including 23 regional companies.

prepared for any larger-scale bad debt situation and to ensure that banks put effective risk management in place.

4. **Invest in talent and enhance labor mobility.** China has made great strides in educating its people, but more is needed. Among the measures that the government could now take are providing more funding for education, designing programs that rotate effective teachers to places they are most needed, and engaging the private sector to define job-ready skills, build those into curricula, and establish an education-to-employment pipeline. On top of this, the government could enhance labor mobility to optimize employment across different regions of the country. Expansion of unemployment insurance and training can help smooth the transition for displaced workers and help them back into jobs. Ensuring gender equality in opportunities in education and in the labor market, while supporting women as well as men as they develop their careers, can further strengthen China's talent base.

5. **Boost aggregate demand.** As inequality grows, the government can revise fiscal and tax policies to give households more spending power. For families in need, it could consider conditional cash transfers. Improving social safety net programs by raising health-care and retirement benefits, for example, can reduce the need for precautionary saving for out-of-pocket medical expenses, facilitate consumption, and reduce income inequality. Broadening affordable-housing programs to include migrant workers, with market-based subsidies on both the supply and demand side, can also help low-income families to consume more.

6. **Improve public-sector effectiveness.** Ensuring that government raises its own productivity is an important part of any transition to a productivity-led model. Such an effort can start by using household income and productivity indicators to evaluate officials and departments rather than rewarding them largely for the GDP growth their cities or regions achieve. Digitizing government operations and service delivery is an important part of the mix. Government also needs to develop better conflict-resolution capabilities to mediate between different stakeholders so that restructuring and reforms can proceed.

China's transition to a productivity-driven model—and to an advanced economy—will provide a fresh set of opportunities and challenges for businesses operating in China and for competing companies around the world. Four approaches will help corporations navigate the transition (see Box E1, "A CEO agenda for China's potential new direction").

•••

China's leaders have already signaled their intention to shift the economy away from the investment-led model that fueled such rapid growth in the past to one that relies more on domestic consumption. The risks associated with the old model are now evident, and the imperative to execute the transition decisively has become relatively urgent. A new model centered on productivity can deliver substantial benefits to the Chinese economy and enable China to complete its journey toward being one of the world's advanced economies.

Box E1. A CEO agenda for China's potential new direction

We see four ways that companies can navigate the transition.

Take a bottom-up approach to understanding the market. Instead of focusing undue attention on short-term GDP growth rates, companies that want to make the most of the opportunities of China's economy need to have a longer-term but also more detailed view. They need to identify what sectors are likely to thrive in a new productivity-led model. Markets in some cities and provinces will take off because highly productive industries are growing there; others will decline because the local economy has not performed well enough on productivity. Starbucks is one company that has opted to raise its long-term commitment to the Chinese market. The coffee chain now has 1,700 stores in more than 90 Chinese cities, and it plans to open 500 new stores per year to meet demand created by an expanding cohort of middle-class consumers.

Take bold measures to restructure businesses. When China was growing at 10 percent a year, companies in China were too busy keeping up with demand to devote sufficient attention and resources to making their operations internationally competitive. With growth slowing and the possibility of pressure on returns, companies need to take the opportunity to focus on raising productivity, judging which assets are genuinely strategic and how operations could be optimized. The sense of urgency that a more difficult business environment inspires can also be used to make a stronger push for innovation in products and business models, and to review resource allocation to support future growth.

Be prepared for heightened global competition from China. Slower domestic growth may well force Chinese companies to seek new opportunities abroad, and companies everywhere should be prepared for heightened competition. Time spent getting to know these new competitors will be valuable in shaping opportunities to collaborate. For their part, Chinese companies will need to plot their international expansion strategically, choosing which markets to prioritize initially. Global ambitions among Chinese companies present an opportunity for new partnerships that, for instance, may fund next-generation technologies in autos or telecommunications.

Enhance the speed and flexibility of decision making. The economic and political environment in China is likely to be dynamic over the coming decade; companies that cannot size up a fluid situation, decide what to do, and act with speed and agility could find themselves at a severe disadvantage. Companies need to streamline their decision making, constantly gathering information to inform their choices through frequent feedback from suppliers, customers, and partners. For foreign-based multinationals, there may not be time for proposals to travel through multiple layers of reporting to reach decision makers back at global headquarters. More local decision making and empowerment of local teams can help.

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